AMENDMENTS TO THE CLAIMS

Please amend the claims without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows.

1. (Withdrawn) A compound of formula (I):

$$R^6CFX$$
— $S(O)_n$
 R^4
 N
 N
 N
 R^5
 $S(O)_m$
 R^2
 R^3

wherein:

R¹ is CSNH₂;

W is C-halogen or N;

R² is hydrogen or Cl;

R³ is CF₃, OCF₃ or SF₅;

 R^4 is hydrogen, (C₂-C₆)-alkenyl, (C₂-C₆)-haloalkenyl, (C₂-C₆)-alkynyl, (C₂-C₆)-haloalkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₆)-alkyl, CO₂—(C₃-C₆)-alkenyl, CO₂—(C₃-C₆)-alkynyl, —CO₂—(CH₂)_q— R^7 , —CH₂ R^7 , —CH₂ R^9 , OR⁷, OR⁸, COCO₂ R^{10} or COCONR¹⁰ R^{11} ; or CO₂—(C₁-C₃)-alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₃)-alkoxy and (C₁-C₃)-alkylthio; or (C₁-C₆)-alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₆)-alkyl, alkoxy, (C₁-C₆)-haloalkoxy, (C₃-C₇)-cycloalkyl, S(O)_p R^8 and CO₂—(C₁-C₆)-alkyl;

A is (C_1-C_6) -alkylene or (C_1-C_6) -haloalkylene;

 R^5 is (C_2-C_6) -alkenyl, (C_2-C_6) -haloalkenyl, (C_2-C_6) -alkynyl, (C_3-C_6) -cycloalkyl or — $(CH_2)_qR^7$; or (C_1-C_6) -alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkoxy, (C_1-C_6) -haloalkoxy, (C_3-C_7) -cycloalkyl, $S(O)_pR^8$ and CO_2 — (C_1-C_6) -alkyl;

X is F or Cl;

R⁶ is F, Cl or Br;

 R^7 is phenyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₆)-alkyl, (C₁-C₆)-haloalkyl, (C₁-C₆)-alkoxy, (C₁-C₆)-haloalkoxy, CN, NO₂, S(O)_nR⁸, CO₂—(C₁-C₆)-alkyl, COR⁸, NR¹²R¹³ and OH;

 R^8 is (C_1-C_6) -alkyl or (C_1-C_6) -haloalkyl;

 R^9 is a heteroaromatic radical having 5 or 6 ring atoms and 1, 2 or 3 hetero atoms in the ring selected from the group consisting of N, O and S, unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_4) -alkyl, (C_1-C_4) -haloalkyl, (C_1-C_4) -haloalkoxy, (C_1-C_4) -haloalkoxy, (C

R¹⁰ and R¹¹ are each independently H or R⁵;

or the radical NR¹⁰R¹¹ forms a five- to seven-membered saturated ring which optionally contains an additional hetero atom in the ring which is selected from O, S and N, the ring being unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₆)-alkyl, (C₁-C₆)-haloalkyl and CO₂—(C₁-C₆)-alkyl;

R¹² and R¹³ are each independently H or (C₁-C₆)-alkyl;

m, n and p are each independently zero, one or two; and

q is zero or one;

or a pesticidally acceptable salt thereof.

- 2. (Withdrawn) A compound or a salt thereof as claimed in claim 1 wherein R⁶ and X are both F.
 - 3. (Withdrawn) A compound or a salt thereof as claimed in claim 1 wherein

R¹ is CSNH₂;

W is C-Cl;

R² is Cl;

R³ is CF₃ or OCF₃;

 R^4 is (C_2-C_4) -alkenyl, (C_2-C_4) -alkynyl, (C_3-C_7) -cycloalkyl, CO_2 — (C_1-C_3) -alkyl, CO_2 — (C_3-C_4) -alkynyl or — CO_2 — $(CH_2)_q$ — R^7 ; or (C_1-C_3) -alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_3) -alkoxy, (C_1-C_3) -haloalkoxy, (C_3-C_7) -cycloalkyl, $S(O)_pR^8$ and CO_2 — (C_1-C_3) -alkyl;

A is (C_1-C_4) -alkylene or (C_1-C_4) -haloalkylene;

 R^5 is (C_3-C_6) -cycloalkyl or — $(CH_2)_qR^7$; or (C_1-C_3) -alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_3) -alkoxy, (C_3-C_6) -cycloalkyl, $S(O)_pR^8$ and CO_2 — (C_1-C_3) -alkyl;

X is F or Cl;

R⁶ is F or Cl;

 R^7 is phenyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_3) -alkyl, (C_1-C_3) -haloalkyl, (C_1-C_3) -alkoxy, (C_1-C_3) -haloalkoxy, (C_1-C_3) -haloalkoxy, (C_1-C_3) -alkyl, (C_1-C_3) -al

 R^8 is (C_1-C_3) -alkyl or $(C_{11}-C_3)$ -haloalkyl;

 R^{12} and R^{13} are each independently H or (C₁-C₃)-alkyl;

m, n and p are each independently zero, one or two; and q is zero or one.

4. (Withdrawn) A compound or a salt thereof as claimed in claim 1 wherein

R¹ is CSNH₂;

W is C—Cl;

R² is Cl;

R³ is CF₃ or OCF₃;

 R^4 is CO_2 — (C_1-C_3) -alkyl, CO_2 — (C_3-C_4) -alkenyl, CO_2 — (C_3-C_4) -alkynyl or

 $--CO_2$ --(CH₂)_q--R⁷; or (C₁-C₃)-alkyl;

A is (C_1-C_4) -alkylene;

 R^5 is (C_3-C_6) -cycloalkyl or — $(CH_2)_qR^7$; or (C_1-C_3) -alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_3) -alkoxy, (C_3-C_6) -cycloalkyl, $S(O)_pR^8$ and CO_2 — (C_1-C_3) -alkyl;

X is F or Cl;

R⁶ is F or Cl;

 R^7 is phenyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₃)-alkyl, (C₁-C₃)-haloalkyl, (C₁-C₃)-alkoxy, (C₁-C₃)-haloalkoxy, CN, NO₂ and S(O)_p R^8 ;

 R^8 is (C_1-C_3) -alkyl or (C_1-C_3) -haloalkyl;

m, n and p are each independently zero, one or two; and

q is zero or one.

- 5. (Withdrawn) A process for the preparation of a compound of formula (I) or a salt thereof as defined in claim 1, which process comprises:
- a) when R^1 is CSNH₂, and R^2 , R^3 , R^4 , R^5 , R^6 , W, A, X, m and n are as defined in claim 1, reacting a compound of formula (II):

$$R^6CFX$$
 $S(O)_n$
 R^4
 N
 N
 $R^5-S(O)_m$
 R^2
 R^3

wherein R², R³, R⁴, R⁵, R⁶, W, A, X, m and n are as defined in formula (I), with an alkali or alkaline earth metal hydrosulfide; or

- b) when R¹ is CSNH₂, and R², R³, R⁴, R⁵, R⁶, W, A, X, m and n are as defined in claim 1, reacting a compound of formula (II) as defined above with a bis(trialkylsilyl)sulfide, in the presence of a base; and
- (c) if desired, converting a resulting compound of formula (I) into a pesticidally acceptable salt thereof.
- 6. (Withdrawn) A pesticidal composition comprising a pesticidally effective amount of a compound of formula (I) or a pesticidally acceptable salt thereof as defined claim 1, in association with a pesticidally acceptable diluent or carrier and/or surface active agent.

7-8. (Cancelled).

9. (Currently amended) A method for controlling pests at a locus which comprises applying to said locus a pesticidally effective amount of a compound of formula (I)

$$R^6CFX$$
— $S(O)_n$
 R^4
 N
 N
 N
 $R^5-S(O)_m$
 R^2
 R^3

wherein:

R¹ is CSNH₂;

W is C-halogen or N;

R² is hydrogen or Cl;

R³ is CF₃, OCF₃ or SF₅;

R⁴ is (C₂-C₆)-alkenyl, (C₂-C₆)-haloalkenyl, (C₂-C₆)-alkynyl, (C₂-C₆)-haloalkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl, (C₁-C₆)-alkyl, CO₂—(C₃-C₆)-alkenyl, CO₂—(C₃-C₆)-alkynyl, — CO_2 —(CH₂)_q—R⁷, —CH₂R⁷, —CH₂R⁹, OR⁷, OR⁸, COCO₂R¹⁰ or COCONR¹⁰R¹¹; or CO₂—(C₁-C₃)-alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₃)-alkoxy and (C₁-C₃)-alkylthio; or (C₁-C₆)-alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₆)-alkoxy, (C₁-C₆)-haloalkoxy, (C₃-C₇)-cycloalkyl, S(O)_pR⁸ and CO₂—(C₁-C₆)-alkyl;

A is (C_2-C_6) -alkylene or (C_2-C_6) -haloalkylene;

 R^5 is (C_2-C_6) -alkenyl, (C_2-C_6) -haloalkenyl, (C_2-C_6) -alkynyl, (C_3-C_6) -cycloalkyl or — $(CH_2)_qR^7$; or (C_1-C_6) -alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkoxy, (C_1-C_6) -haloalkoxy, (C_3-C_7) -cycloalkyl, $S(O)_pR^8$ and CO_2 — (C_1-C_6) -alkyl;

X is F or Cl;

R⁶ is F, Cl or Br;

 R^7 is phenyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₆)-alkyl, (C₁-C₆)-haloalkyl, (C₁-C₆)-alkoxy, (C₁-C₆)-haloalkoxy, CN, NO₂, S(O)_D R^8 , CO₂—(C₁-C₆)-alkyl, COR⁸, NR¹² R^{13} and OH;

 R^8 is (C_1-C_6) -alkyl or (C_1-C_6) -haloalkyl;

 \underline{R}^9 is a heteroaromatic radical having 5 or 6 ring atoms and 1, 2 or 3 hetero atoms in the ring selected from the group consisting of N, O and S, unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_4) -alkyl, (C_1-C_4) -haloalkyl, (C_1-C_4) -haloalkoxy, (C_1-C_4) -haloalkoxy

R¹⁰ and R¹¹ are each independently H or R⁵;

or the radical NR¹⁰R¹¹ forms a five- to seven-membered saturated ring which optionally contains an additional hetero atom in the ring which is selected from O, S and N, the ring being unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₆)-alkyl, (C₁-C₆)-haloalkyl and CO₂—(C₁-C₆)-alkyl;

R¹² and R¹³ are each independently H or (C₁-C₆)-alkyl;

m, n and p are each independently zero, one or two; and

q is zero or one;

or a salt thereof as claimed in claim 1.

10. (Currently amended) A method for controlling pests at a locus which comprises applying to said locus a pesticidally effective amount of a composition as claimed in claim 6 comprising a pesticidally effective amount of a compound of formula (I)

$$R^6CFX$$
 $S(O)_n$
 R^4
 R^5
 $S(O)_m$
 R^2
 R^3
 R^1
 R^1
 R^1

wherein:

R¹ is CSNH₂;

W is C-halogen or N;

R² is hydrogen or Cl;

R³ is CF₃, OCF₃ or SF₅;

R⁴ is (C₂-C₆)-alkenyl, (C₂-C₆)-haloalkenyl, (C₂-C₆)-alkynyl, (C₂-C₆)-haloalkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl, (C₁-C₆)-alkyl, CO₂—(C₃-C₆)-alkenyl, CO₂—(C₃-C₆)-alkynyl, — CO_2 —(CH₂)_q—R⁷, —CH₂R⁷, —CH₂R⁹, OR⁷, OR⁸, COCO₂R¹⁰ or COCONR¹⁰R¹¹; or CO₂—(C₁-C₃)-alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₃)-alkoxy and (C₁-C₃)-alkylthio; or (C₁-C₆)-alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₆)-alkoxy, (C₁-C₆)-haloalkoxy, (C₃-C₇)-cycloalkyl, S(O)_pR⁸ and CO₂—(C₁-C₆)-alkyl;

A is (C_2-C_6) -alkylene or (C_2-C_6) -haloalkylene;

R⁵ is (C₂-C₆)-alkenyl, (C₂-C₆)-haloalkenyl, (C₂-C₆)-alkynyl, (C₃-C₆)-cycloalkyl or —(CH₂)_qR⁷; or (C₁-C₆)-alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₆)-alkoxy, (C₁-C₆)-haloalkoxy, (C₃-C₇)-cycloalkyl, S(O)_pR⁸ and CO_2 —(C₁-C₆)-alkyl;

X is F or Cl;

R⁶ is F, Cl or Br;

 R^7 is phenyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkyl, (C_1-C_6) -haloalkyl, (C_1-C_6) -alkoxy, (C_1-C_6) -haloalkoxy, (C_1-C_6) -haloalkoxy, (C_1-C_6) -alkyl, (C_1-C_6) -al

 R^8 is (C_1-C_6) -alkyl or (C_1-C_6) -haloalkyl;

R⁹ is a heteroaromatic radical having 5 or 6 ring atoms and 1, 2 or 3 hetero atoms in the ring selected from the group consisting of N, O and S, unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₄)-alkyl, (C₁-C₄)-haloalkyl, (C₁-C₄)-alkyl, (C₁-C₄)-haloalkoxy, NO₂, CN, CO₂(C₁-C₆)-alkyl, S(O)_pR⁸ and OH;

R¹⁰ and R¹¹ are each independently H or R⁵;

or the radical NR¹⁰R¹¹ forms a five- to seven-membered saturated ring which optionally contains an additional hetero atom in the ring which is selected from O, S and N, the ring being unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₆)-alkyl, (C₁-C₆)-haloalkyl and CO₂—(C₁-C₆)-alkyl;

R¹² and R¹³ are each independently H or (C₁-C₆)-alkyl;

m, n and p are each independently zero, one or two; and

q is zero or one;

or a pesticidally acceptable salt thereof, in association with a pesticidally acceptable diluent or carrier and/or surface active agent.

- 11. (Withdrawn) A veterinary medicament comprising a pesticidally effective amount of a compound of formula (I) or a salt thereof as claimed in claim 1, in association with a veterinarily acceptable diluent or carrier and/or surfact active agent.
- 12. (Currently amended) A method for the control of pests in or on an animal which comprises administering to said animal a pesticidally effective amount of a compound of formula (I)

$$R^6CFX$$
 $S(O)_n$
 R^4
 N
 N
 $R^5-S(O)_m-A$
 R^2
 R^3

wherein:

R¹ is CSNH₂;

W is C-halogen or N;

R² is hydrogen or Cl;

R³ is CF₃, OCF₃ or SF₅;

R⁴ is (C_2-C_6) -alkenyl, (C_2-C_6) -haloalkenyl, (C_2-C_6) -alkynyl, (C_2-C_6) -haloalkynyl, (C_3-C_7) -cycloalkyl, (C_3-C_7) -cycloalkyl, (C_3-C_6) -alkyl, CO_2 — (C_3-C_6) -alkenyl, CO_2 — (C_3-C_6) -alkynyl, — CO_2 — $(CH_2)_q$ — R^7 , — CH_2R^7 , — CH_2R^9 , OR^7 , OR^8 , $COCO_2R^{10}$ or $COCONR^{10}R^{11}$; or CO_2 — (C_1-C_3) -alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_3) -alkoxy and (C_1-C_3) -alkylthio; or (C_1-C_6) -alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkoxy, (C_3-C_7) -cycloalkyl, $S(O)_pR^8$ and CO_2 — (C_1-C_6) -alkyl;

A is (C_2-C_6) -alkylene or (C_2-C_6) -haloalkylene;

 R^5 is (C_2-C_6) -alkenyl, (C_2-C_6) -haloalkenyl, (C_2-C_6) -alkynyl, (C_3-C_6) -cycloalkyl or — $(CH_2)_qR^7$; or (C_1-C_6) -alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkoxy, (C_1-C_6) -haloalkoxy, (C_3-C_7) -cycloalkyl, $S(O)_pR^8$ and CO_2 — (C_1-C_6) -alkyl;

X is F or Cl;

R⁶ is F, Cl or Br;

 R^7 is phenyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkyl, (C_1-C_6) -haloalkyl, (C_1-C_6) -alkoxy, (C_1-C_6) -haloalkoxy, (C_1-C_6) -haloalkoxy, (C_1-C_6) -haloalkoxy, (C_1-C_6) -haloalkoxy, (C_1-C_6) -haloalkoxy, (C_1-C_6) -haloalkyl, (C_1-C_6) -alkyl, (C_1-C_6) -al

 R^8 is (C_1-C_6) -alkyl or (C_1-C_6) -haloalkyl;

R⁹ is a heteroaromatic radical having 5 or 6 ring atoms and 1, 2 or 3 hetero atoms in the ring selected from the group consisting of N, O and S, unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₄)-alkyl, (C₁-C₄)-haloalkyl, (C₁-C₄)-alkyl, (C₁-C₄)-haloalkoxy, NO₂, CN, CO₂(C₁-C₆)-alkyl, S(O)_pR⁸ and OH;

R¹⁰ and R¹¹ are each independently H or R⁵;

or the radical NR¹⁰R¹¹ forms a five- to seven-membered saturated ring which optionally contains an additional hetero atom in the ring which is selected from O, S and N, the ring being unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₆)-alkyl, (C₁-C₆)-haloalkyl and CO₂—(C₁-C₆)-alkyl;

 R^{12} and R^{13} are each independently H or (C_1-C_6) -alkyl;

m, n and p are each independently zero, one or two; and

q is zero or one;

or a salt thereof as claimed in claim 1.

- 13. (Cancelled).
- 14. (Withdrawn) A compound or salt thereof as claimed in claim 3 wherein R⁶ and X are both F.
- 15. (Withdrawn) A compound or salt thereof as claimed in claim 4 wherein R^6 and X are both F.
- 16. (Withdrawn) A compound or salt thereof as claimed in claim 1 wherein R¹ is CSNH₂, W is C—C¹, R² is C¹, R³ is CF₃ and R⁴ is CH₃.
 - 17. (Withdrawn) The compound or salt thereof as claimed in claim 16, wherein:
 - (a) A is CH₂CH₂, R⁵S(O)_m is CH₃S and R⁶CFX—S(O)_n is CF₃S;
 - (b) A is CH₂CH₂, R⁵S(O)_m is CH₃SO and R⁶CFX—S(O)_n is CF₃S;
 - (c) A is CH₂CH₂, R⁵S(O)_m is CH₃SO₂ and R⁶CFX—S(O)_n is CF₃S;
 - (d) A is CH₂CH₂, R⁵S(O)_m is CH₃S and R⁶CFX—S(O)_n is CF₃SO;
 - (e) A is CH₂CH₂, R⁵S(O)_m is CH₃SO and R⁶CFX—S(O)_n is CF₃SO;
 - (f) A is CH₂CH₂, R⁵S(O)_m is CH₃SO₂ and R⁶CFX—S(O)_n is CF₃SO;
 - (g) A is CH₂CH₂, R⁵S(O)_m is CH₃S and R⁶CFX—S(O)_n is CF₃SO₂;
 - (h) A is CH₂CH₂, R⁵S(O)_m is CH₃SO and R⁶CFX—S(O)_n is CF₃SO₂; or
 - (i) A is CH₂CH₂, R⁵S(O)_m is CH₃SO₂ and R⁶CFX—S(O)_n is CF₃SO₂.
- 18. (New) The method according to claim 10 wherein the composition contains from about 0.0001ppm to about 20ppm of compound of formula (I).

- 19. (New) The method according to claim 18 wherein the composition contains from about 0.001ppm to about 5ppm of compound of formula (I).
 - 20. (New) The method according to claim 12, wherein the pests are fleas and ticks.
- 21. (New) The method according to claim 12, wherein the animal is a domestic companion animal such as a dog or a cat.